DOCUMENT RESUME

ED 227 251 CE 035 266

AUTHOR Watson, Gann
TITLE Today's Students/Tomorrow's Workplace: Are They Ready for Each Other? Vocational Education in South Carolina's Secondary Schools.
INSTITUTION Southeastern Public Education Program, Columbia, S.C.
PUB DATE Mar 83
NOTE 35p.
AVAILABLE FROM Southeastern Public Education Program, 1338 Main Street, Suite 501, Columbia, SC 29201 ($3.00).
PUB TYPE Viewpoints (120) -- Reports - Descriptive (141) -- Information Analyses (070)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Allied Health Occupations Education; Business Education; Career Counseling; Career Education; Curriculum; Educational Needs; Educational Objectives; *Education Work Relationship; Employment Projections; Enrollment; Home Economics Education; Job Placement; Labor Needs; Needs Assessment; Office Occupations Education; *Outcomes of Education; Program Content; Program Descriptions; *Program Effectiveness; *Relevance (Education); School Business Relationship; School Counseling; *Secondary Education; *State Programs; Trade and Industrial Education; *Vocational Education
IDENTIFIERS *South Carolina

ABSTRACT

A number of publicly available documents were examined to provide an overview of the operations of secondary vocational education in South Carolina and to assess the outcomes of the system. The focus of the analysis was on the extent to which the state's vocational education system is relevant to the needs of South Carolina's economic development and to the needs of students who do not choose to go on to postsecondary education. Among those areas investigated were curriculum, enrollment, business and office occupations education, trade and industrial education, home economics education, health occupations education, the relationship between occupational outlook and vocational education curriculum, the relationship among occupational categories and curriculum, supply and demand data, career exposure, career guidance, job placement, and communication between the vocational education system and local business and industry. Data pertaining to these areas suggest that the operational realities and outcomes of vocational education are not consistent with the purposes of the system as set forth by state leaders and that the purpose of vocational education needs to be reexamined. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED227251

TODAY'S STUDENTS/TOMORROW'S WORKPLACE:
ARE THEY READY FOR EACH OTHER?

Vocational Education in South Carolina's Secondary Schools

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

by
Gann Watson

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D Watson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Copyright © 1983, by Southeastern Public Education Program

The Southeastern Public Education Program (SEPEP) strengthens the capacities of citizens and organizations to act on behalf of the educational interests of children in public schools. SEPEP provides research, information, technical assistance, and representation to build the public support necessary to make school improvement possible. SEPEP is a private, non-profit organization with a fifteen year history of effective advocacy for quality education.

Copies of this paper are available from SEPEP for $3.00/each.

CE 035266

March, 1983

Note to the Reader

One of the major purposes of this paper is to provide a factual overview of how the secondary vocational education system operates in South Carolina, and to assess the outcomes of the system. This paper is necessary because currently there is no other description/analysis of the vocational education system written for the lay public and for policy makers.

This paper does have a point of view. It looks at the vocational education system from the perspective of citizens who believe the system should be relevant to the needs of South Carolina's economic development, and to the needs of young people who do not choose to go on to post-secondary education. Specifically, it assumes the state's vocational education system should provide students with skills which are marketable, which do not restrict students to a lifetime of low-skill, low-wage jobs, and which prepare students to take advantage of jobs with a future.

This paper has been prepared using publicly available documents which provide information about the vocational education system, and employment in this state. While every effort has been made to assure the accuracy of the data herein, it is possible there is additional or even conflicting unaggregated or unpublished data which was not available to the author of this paper.

"A look at trends in employment indicates that Americans are working more than ever before. Entire new industries will emerge, creating a need for training persons in new occupational areas in response to demands for goods and services." No other group in the state can have a greater influence on students and their attitudes toward work than vocational educators.[1]

Dr. Moody Oswald, Director
Office of Vocational Education
S. C. State Department of Education

INTRODUCTION

In school year 1981 the South Carolina public school system served nearly 195,000 secondary school students. Almost two-thirds of those students were enrolled in one or more types of vocational programs during their high school experience. Some took vocational courses solely for personal enrichment; others sought to identify a trade they could explore during high school and afterwards fine-tune at one of the state's technical colleges; and many participated with the full intention of learning a skill which would enable them to better compete in today's and tomorrow's job markets as soon as they graduated.

In practice, what is the purpose and effect of the vocational education system? Does it provide students with a mastery of job related skills for which there is a demand? How many of its programs address new and emerging occupations? The answers to these and other questions are important if we are to understand the vocational education system and evaluate its effectiveness. Our state Superintendent of Education has pointed out that, "Demand is greater than ever before in South Carolina for well-prepared, highly skilled workers. Without a trained workforce, the technologically advanced industries now being attracted to our state would have to locate elsewhere."[2] How is the vocational education

system contributing to the development of "well-prepared, highly skilled workers"?

Following is an analysis of the vocational education system in South Carolina. Its purpose is to comment on and raise questions regarding the system's ability to provide students with skills for which there is current and future employment demand. Further, this paper is intended to stimulate discussion about how citizens, educators, and state leaders might work together to help the vocational education system identify and develop the potential of all students the system serves.

Background

Until the opening of the first vocational centers in South Carolina over fifteen years ago, a substantial majority of high school students flowed through the public school system and into the job market unskilled because the state lacked the facilities to provide in-depth occupational training.[3] Today there are 18 comprehensive high schools, 200 secondary high schools, and 55 area vocational centers serving more than 130,000 students statewide. Area vocational centers are defined by the South Carolina State Department of Education as specialized secondary schools equipped to prepare students for immediate job entry and for continued specialization [4] in post-high school vocational or technical institutions.

In his presentation before the South Carolina School Administrator's Conference, Dr. Moody Oswald stated that "one of the major purposes of vocational education is to provide learning experiences and opportunities for students which will enable them to develop the skills and the knowledge necessary to meet the job requirements of employers." [5] Supporting the importance of such a purpose is the fact that in 1980, one-third of South Carolina's graduating high school

seniors chose not to continue their formal education but sought a place in the workforce immediately upon graduation.[6]

As one might reasonably expect, vocational education does not come cheaply. In fiscal year 1981, South Carolina spent $53 million on vocational programs and administration. State and local funds provided $42 million of that amount while federal funds accounted for $11 million. Approximately 70% of the $11 million in federal funds went to local school districts in support of secondary vocational preparation.

Curriculum

The vocational education curriculum is based on the Defined Minimum Program (DMP) for South Carolina School Districts. The DMP requires that "a vocational education program shall include either: (1) vocational specialization and skill development in a minimum of four occupational program areas, or (2) vocational specialization and skill development in a minimum of ten trade and industrial programs plus two other vocational program areas."[7] Occupational program areas offered by vocational centers and comprehensive high schools include: agricultural education, occupational home economics, office occupations education, trade and industrial education, health occupations education, and marketing and distributive education. The DMP further stipulates that "schools are required to provide prevocational education as an elective for students in grades nine and/or ten."[8]

Contained within the occupational program areas mentioned above are courses relative to those areas. For instance, a course in housing and home furnishings services would fall under occupational home economics, while one in machine shop or electricity would come under the trades and industrial program heading. A list of program areas and courses offered can be found in Appendix A of this paper.

Local business and industry have a vested interest in vocational curriculum. In today's times technological advances in most industries have caused a steady decline in the demand for certain skills and related employment while creating a demand for other, perhaps altogether different, skills. Should vocational centers consider phasing out the training in areas which will experience lesser and lesser demand for workers with these skills, replacing them with occupational programs which prepare students for jobs related to these technological advances? How can business and industry help the vocational education system prepare for the future so that the system's training consistently keeps pace with the present?

The process for adding a course to a vocational center's curriculum is initiated locally. Often it starts with student demand for a course not currently offered or for an additional section to a course already in the curriculum. Having determined that enough student interest exists, the vocational center administrators assess the relevance and utility of this training to labor demand in the community and, in the case where an additional section is requested, to job placement history of that particular training. If vocational center administrators, perhaps with input from their advisory council, determine that student enrollment and placement would be sufficient to justify offering this training, the request will then go through proper channels at the school district and state levels to secure their approval to make the course available at the center.

The critical point in this process is the starting point. Local citizens who want to be sure their vocational center is offering training which is relevant to the employment needs of their community and the state should concentrate their attention and efforts on the curriculum and assert their influence at the beginning of the decision-making process.

Enrollment

Early in their high school career students are provided information and guidance with respect to occupational training available through the vocational program in their school district. In school year 1981-82, 12,712 ninth and tenth grade students were enrolled in prevocational education.[9] According to the 1981-82 Vocational-Technical Education Mini-Plan, "Prevocational education is a program through which students have occupational exploration experiences and are provided guidance services to help them identify their abilities and interests leading to the selection of one or more careers. The main objective is to provide an opportunity for students to explore at least five different areas of vocational instruction with emphasis on communicative, computational and quantitative skills, occupational information and civic responsibilities in conjunction with skill training."[10] But in a 1980-81 Study of Prevocational Education in South Carolina one conclusion indicated that "although there are many prevocational education course offerings, the offerings tend to follow traditional offerings and adequate programs are not available related to the growing occupations that are emerging in South Carolina: i.e., Machine Shop, Medical Careers, Cashiers, etc."[11]

All vocational courses are elective and in most cases students are enrolled in the vocational program of their choice on a first-come, first-served basis. Some vocational centers, however, do test student aptitude for particular courses such as health occupations or data processing. In most school districts the onset of the vocational education enrollment process requires students to select three vocational courses and indicate their order of preference. In the event a student's first choice is unavailable, either because of test results or because that course has already been filled, the student will usually be enrolled in the course of their second or third choice. It would be misleading,

then, to declare student popularity of a course based on enrollment since there are some who are enrolled in one program but would have preferred another.

Student enrollment is reflected in areas of skill development traditional to their gender. That is, even though girls comprise half the vocational student population, they represent the overwhelming majority of students enrolled in health occupations education (87%), consumer and homemaking (78%), occupational home economics (76%), and business and office occupations (74%). Likewise, we iind the highest concentration of boys in the trade and industrial program area (80%), industrial arts education (90%), and agricultural education (87%). Males also represent the majority of 9th and 10th grade students enrolled in prevocational education (84%).[12]

Three program areas with the highest enrollments are:

Business and Office Occupations	51%	of students enrolled in occupational training courses
Trades and Industrial	28%	"
Consumer and Homemaking Education	25%	of ALL secondary vocational students; this is not an occupational training area

Health occupations enroll the fewest number of students in the occupational program area (2%). Following is an enrollment profile for each of these program areas.

Business and Office Occupations

In school year 1980-81 there were 44,110[13] students enrolled in the program clusters within this occupational group. These program clusters are stenographic, accounting, clerical, senior intensified program, and data processing. More than half of the business students were enrolled in the general clerical program

cluster, while less than 1% were taking data processing courses.[14] The accounting and stenographic clusters represented 17% and 7% of student enrollment, respectively. Data processing was only offered in 3 of the 55 vocational centers while the general clerical cluster was available in the vast majority of business and office occupations programs.[15] Students who complete general clerical cluster requirements learn skills which prepare them for such jobs as receptionist, file clerk, and typist.

Business and Office Occupations students have consistently comprised a substantial portion of the entire secondary vocational student population. Relatively few of these students, however, end up classified, for reporting purposes, as "completers." For example, of the 33,753 business students enrolled during school year 1979-80[16], 14% (4,720)[17] completed all of the required courses under a particular program cluster, such as accounting or, perhaps, general clerical. The required courses within the accounting cluster are: typewriting I, accounting I, accounting II, and office procedures or business principles and management. The student who takes, say, a semester of personal typing, and maybe one of business law, may have completed these particular courses but she/he has not (in this example) followed a required sequence of training and would not, therefore, be classified as a "completer." Almost half of the above-mentioned completers were available for job placement and over a third (38%)[18] of those available were placed in jobs related to their business training. Relatively speaking, these statistics are not startling but they do give rise to comment and questions.

Vocational training for business and office occupations can be likened to a funnel which is connected to the job market. The mouth's capacity is quite large, accomodating a significant portion of the total vocational student population. The number of students who choose to follow their business studies

through the funnel's neck to completion, however, is relatively small; and those who make it all the way through and into the job market is even smaller.

Do most of the students who enroll in this occupational group do so just to take a course here and there, without seriously considering the applicability of the training to post-graduation jobs? If so, why? Do a substantial majority of business students enroll in general clerical courses because they expect to find jobs in those fields? And what percentage of the business students placed in jobs related to their training came out of the general clerical cluster? One might wonder, too, if the data processing cluster accounted for such a small percentage of total business student enrollment because of testing criteria and lack of information as well as because of limited availability. And finally, it would be interesting to see if the overall business student completion rate increases if training and information related to the computer field and other emerging technologies were offered and open to a larger number of vocational students.

Trades and Industrial Education

Of all the occupational program areas in the vocational system, trades and industrial education offers students the widest variety of program choices. There are over 25 different courses offered with a total 1980-81 enrollment of 24,200 students. The greatest number of students in this group are enrolled in the auto mechanics program (14%).[19] Following closely are building construction (12%), masonry (10%), electricity (8%), industrial sewing (7%), welding (7%), cosmetology (5%), machine shop (4%), and graphic arts (4%). Males represent over 90% of the students enrolled in each of the above courses except for graphics, industrial sewing and cosmetology where females represent 58%, 95%, and 94%, respectively.[20]

At least one of the courses within this occupational group offers its students the opportunity to develop skills which are not only marketable but which promise respectable entry wages and potential for advancement on the job. A class 2 machinist, for example, earns between $6.16 and $7.21 per hour in South Carolina. An experienced, senior or first class machinist can earn from $7.05 to $8.00 per hour.[21] The vocational system offers machine shop training in over 50% of its facilities, and the placement rate is quite high, 80%. But even though there is a continued demand for machinists, human resources are not being adequately utilized by the vocational education system. Evidence would suggest that little effort is made to provide young women with the information that training in machine shop can greatly increase a student's chances to obtain high paying employment immediately after high school. In SY 1981-82 about 1,100 students were enrolled in machine shop programs across the state; only 28 of them were female; yet girls represent about half the entire vocational student population. This raises questions as to whether our state is making good use of its potential workforce.

Less than one-third of the students enrolled in trades and industrial programs in school year 1979-80 completed their studies, while over half of those completing were available for placement. Of those available, 27% were placed in their field.[22]

Home Economics Education

It is important to differentiate here between the two vocational groups, Consumer and Homemaking Education and Occupational Home Economics. The former focuses on personal development and family care courses such as foods and nutrition and family life education. As such, these courses do not provide students with skills they can sell in the employment marketplace. The latter,

Occupational Home Economics, provides students with income-generating skills such as those required for food service workers, and day care attendants.

In school year 1980-81 there were 1,957 students enrolled in occupational home economics courses and 31,605 students enrolled in the consumer and home making education group.[23] Thus, one-fourth of all secondary vocational students were enrolled in courses which were not related to income producing jobs.

For those who were taking courses under occupational home economics in school year 1979-80, 41% completed their studies and 55% of those who completed were available for job placement. Of those available, 14% were placed in their field.[24]

Health Occupations Education

The health occupations program group offers secondary (not including adult) vocational students courses in general health occupations, nursing assistant (aide), and practical nursing. In school year 1981-82, 22 of the 55 vocational centers and 12 of the 18 comprehensive high schools offered general health occupations training. Practical nursing (phase I) was available in 11 of those vocational centers and served about 14% of this group's population. Five of the vocational centers offered programs in nursing assistance to 7% of the group's enrollment. Less than 2% of the vocational students enrolled during the school year 1979-80 were taking health occupations education,[25] yet it boasted the highest completion and placement statistics of all the occupational groups. Forty-seven percent of the group completed their studies, 58% of the completers were available for placement, and almost 80% of those available were placed in their field.[26]

Occupational Outlook vs. Vocational Education Curriculum

Data collected and analyzed by the South Carolina Employment Security Commission (ESC) facilitates the projection of job openings in particular fields of employment. Such data is contained in an ESC document on occupational projections for 1978-1985.[27] Two of the primary uses of these data are (1) "guidance and counseling of young people in choosing careers," and (2) "planning and development of education and training programs."[28] When analyzing this information it is important to understand the meaning of particular terms and categories contained in the report. For instance, employment *growth* is not synonomous with employment *demand*. That is to say, *growth* in robotics technology may be quite large, but present *demand* for skilled workers in this field is still relatively small, especially when compared to the demand for, say, custodial workers. Furthermore, demand data does not include that which exists in areas contiguous to South Carolina (such as Augusta, Georgia), nor does it take into consideration demand due to labor turnover. Likewise, the supply category refers only to institutional supply, that which comes from such systems as vocational and technical education, and government programs such as CETA and Job Corps. It does not include supply which might be provided by private sector sources such as cosmetology or photography schools.

Another note of caution about using occupational outlook data has come from Dr. Herbert Bienstock, Alumni Merit Professor of Labor and Human Values at the City University of New York:

> The spring 1980 Occupational Outlook Quarterly put out by the U.S. Department of Labor lists occupations, the number of people employed in them, and the anticipated number of job openings in each. What we find in examining this listing is that although there will be new and emerging occupations, most of the jobs in them will be well known to us.

> For example, the number one occupational opening for 1978-1990 is for secretaries and stenographers. Retail sales workers are second, followed by building custodians, cashiers, bookkeeping workers, and so forth. The new and emerging changes we develop, of course, will be in the kinds of equipment these "old" jobs will be using and the nature of their function. (emphasis added) Secretaries will not be using green eye shades and quill pens. They will be using computerized typewriters and a whole array of modern technology. As you look over this list of occupations, however, there are very few job categories that you will not recognize. . . . So the skill we expect the workers to learn must first be found in the processes of the occupation. We must focus on that grail of changing process, such as the tools used, and the way the work flows, and not so much on changing occupations. [29]

One should keep these clarifications in mind when relating South Carolina Employment Security Commission employment projections to vocational curriculum and enrollment as potential sources of supply.

Occupational Categories vs. Curriculum - Major occupational categories used by the ESC are white-collar, blue-collar, and service workers. In their report, ESC expects that "by 1985, the service producing industries will account for about six out of every ten workers in the state" and that "even though white-collar occupations are expanding faster than blue-collar, the blue collar occupational category will continue to be the largest."[30]

Vocational training for white-collar jobs such as sales and clerical workers, and computer operators would be found in the business and office occupations and marketing and distributive education program areas. Blue collar occupations filled by craft and kindred workers, operatives, and laborers would be matched by vocational students enrolled in the trades and industrial program group. Service workers provide a variety of functions from security to food and beverage services, cleaning services, personal or business services, and health occupations services. Vocational training applicable to the service industries could be found not only in the above mentioned groups but in occupational home economics and agricultural education as well.

Supply vs. Demand Data - ESC projections indicate that, by 1985, the general clerical occupational group will have experienced an overall growth rate of 18.4%, making clerical workers the occupational category with the highest number of annual openings for the period 1978-1985.[31] Within the same report, however, ESC projects that:

> "Technological developments in information processing systems, office equipment, and communication systems are all expected to offset the employment of various occupations within the clerical sector. The use of computers to store information and perform routine repetitive clerical calculations will reduce demand for filing, payroll, bookkeeping, and billing clerks. At the same time this increased use of computers will raise the demand for computer data entry or peripheral equipment operators. The demand for stenographers not trained as court reporters will continue to be adversely affected by advances in dictation machines. Technological developments will not affect many types of clerical workers whose responsibilities include a high degree of public or personal contact, such as secretaries and receptionists. In addition, the demand for secretaries and receptionists will be increased due to the rapid expansion of such industries as medical and health services and miscellaneous business services."[32]

Further, 1983 ESC supply and demand figures indicate that the annual institutional supply of general clerical workers will exceed demand by about 60%.[33] Eighty-six percent of this supply comes from vocational education.[34] This information is significant because over half of the students enrolled in the business and office occupations curriculum were enrolled in the general clerical program, although included in that half are students who do not intend to pursue general clerical training to completion and job-related search.

As quoted above, employment opportunities for computer and peripheral equipment operators are expected to grow faster than the average for all occupations, yet vocational training for these jobs is presently available to a relatively small number of students, statewide. While it is generally true that the number of school districts which offer some type of computer based instruction is on the

rise, it is equally true that computer training programs offered at the state's post-secondary and technical institutions has increased dramatically. Could this mean that vocational students who are taking data processing now will find themselves competing against those who have completed computer training programs at the post-secondary level? Perhaps not, but it would be worth ensuring that the two major training systems are providing skills which complement rather than compete with each other.

The occupational home economics vocational program group provides a direct link to service industry needs. According to ESC data, institutional supply for food management services comes solely from vocational education with demand exceeding supply by about 46%.[35] Likewise, training for child care services, offered in school year 1981-82 at 12 vocational centers and 8 comprehensive high schools,[36] has an expected annual demand over twice the anticipated vocational supply.[37] And lastly, institutional and home management services, occupational training which relates to the hotel and motel industry, has the highest projected annual demand in this occupational group; ESC data indicate that vocational supply here is less than 1% of demand.[38]

In the trades and industrial occupations group where such programs as drafting, electronics, metalworking and fabrication, sheet metal, and machine shop skill development is offered, highest vocational student enrollment is found in automotive mechanics. Vocational supply of auto mechanics is expected to be over 2½ times greater than projected annual demand in 1983.[39] Employment Security Commission data anticipate a 25% employment growth in the need for data processing machine mechanics.[40] Currently there are no vocational training programs available to teach this skill. According to staff in the State Department of Education's Office of Vocational Education, this kind of training

is beyond the scope of our vocational system which provides entry level skills, and is more within the instructional capabilities of the technical education system.

In the health field, the projected demand for nurse's aides in 1983 is almost ten times the expected institutional supply.[41] About 34% of anticipated supply will come from vocational education.[42] The majority of health education vocational students are enrolled in general health programs rather than specific, occupational ones such as nurse's aide or practical nursing. And while ESC data did not indicate an anticipated demand under the category "general health education," its "occupational outlook" projected that "health employment is expected to continue to grow, influenced by the increased demand for health care caused by a growth in the population and the public's increasing interest in health consciousness."[43]

Readers should be aware that as presently reported, data concerning labor supply and demand is subject to various interpretations. Caution should be exercised in making absolute judgements about the relevance of the vocational education curriculum based solely on the Employment Security Commission data. As a general indicator of the state's future labor needs, however, such data provides one useful criterion to assess the relevance of the vocational education curriculum.

Students and Voc-Ed: Exposure, Guidance, and Placement

Exposure

When we examine and evaluate vocational education we must carefully look not only at curriculum but at how students are exposed to and informed about that curriculum. What is "welding" to a 10th grade female? Will she understand the occupation if her exposure to it amounts to a ten minute tour of one welding class at a vocational center? What is "word-processing" to a young, mechanically

inclined 15 year-old boy? If we show him a screen and printer and even give him a quick demonstration, will he understand that occupational field? It is not a given that: (a) students have thought seriously about what they want to do after graduation; (b) students understand that an occupation is more than a job and the distinction between the two; and (c) the names or titles of occupations we ask students to select from are self-explanatory or that they reveal the nature of related jobs.

Most students entering vocational education lack information about, and comprehension of, the content and job relevance of courses which are unfamiliar to them. As a result many select vocational training in areas with which they have some familiarity. For instance, the likelihood that a female student in a rural school district understands something about the tool and die industry (not just the course) is slim. But it is quite probable that this same student will know, with some degree of certainty, what to expect from jobs in beauty shops and industrial sewing factories. Chances are good, then, that she will opt for the training she knows something about, regardless of the extent to which it will enhance her employability. The same can be said of the boy who chooses auto mechanics or auto body repair, over word-processing or accounting. The lack of information, counseling, and encouragement causes students to select vocational training that is consistent with their cultural experiences and stereotypes. This is not to suggest that, given all the available counseling and information on word processing or machine shop, students will choose them over the more traditional courses. But it would enable students to make more informed choices based on their understanding of the content, utility, and benefits of various types of occupational training.

Colleges and universities allow their freshman students two years to decide on a major course of study. Yet we expect our high school vocational

students to make a comparable decision in less time and with a fraction of the information. One trip to a vocational center and a few to the guidance office are not sufficient to make students comfortable with their understanding of particular fields of employment, especially when those fields have been "typed" in students' minds. The continuous provision of comprehensive career information, exposure and awareness, not only guidance, is of vital importance to students when they are faced with the choice of which vocational programs to select.

Let's consider, for a moment, the role prevocational education might play in providing potential vocational students with exposure to, and hands-on experience in, certain occupational fields. If we read the State's definition of prevocational education (see page 5 of this report) we see that exploration is precisely the aim of pre-voc. The question is, are our vocational centers providing this exposure and experience to their prevocational students? To what extent are those students learning about all of the occupational programs offered in their school district and/or vocational center? As evidenced by the South Carolina Office of Vocational Education's study of prevocational education in this state, our pre-voc system needs strengthening if it is to achieve its purpose. For instance, in the above mentioned study it was concluded that:

* The vast majority of teachers and administrators surveyed (in the study) consider prevocational education extremely important to the entire educational program;

* The State of South Carolina does not have an adopted list of prevocational education program objectives;

* The extent to which feeder school prevocational programs were compatible with the vocational programs offered in the secondary schools or vocational education centers was not determined by the study.[44]

Furthermore, teachers and administrators surveyed in the study had varying opinions as to the definition of prevocational education. As a result, the

study recommended that the state adopted program definition of prevocational education should be presented to administrators and teachers to serve as a base upon which to develop and establish program goals and objectives.[45]

Vocational administrators, teachers, and state leaders seem to be in agreement that prevocational education is a necessary and effective means for helping students make informed decisions about their career goals. The system, as it is offered now, has some serious weaknesses. But it also has the potential to become a "career-probe" for those students who think they want to learn a vocational skill but know little about how to make occupational choices which ultimately serve their own best interests.

Guidance

Vocational centers which serve more than 500 students are required by the DMP (Defined Minimum Program) to employ one full-time vocational guidance counselor. Centers with less than 500 students must provide guidance services on a part-time basis. Not quite half (44%) of the vocational centers in South Carolina reflect enrollments in excess of 500. For the most part, guidance counselors physically located in Center facilities carry the same type workload as guidance counselors at district junior and senior high schools. That is, they are often responsible for handling student discipline, attendance and record-keeping, scheduling and testing, and completion of paperwork in compliance with state and federal requirements. Furthermore, students are usually at the vocational centers for not longer than 2½-3 hours per day, during which time they are taking class. Consequently, the amount of time individual students spend with guidance counselors discussing career opportunities and objectives is minimal. In its 1980-81 evaluation report, the South Carolina Advisory Council on Vocational and Technical Education recommended that "counselors in the secondary schools should be maximally utilized to counsel students and not be assigned to perform peripheral duties."[46]

Job Placement

In the past, and today, assistance in placing vocationally trained and skilled students has rested primarily with Center faculty. It is also a function of course advisory committees in the trades and industrial occupational group. These persons have been and continue to be expected to seek out employment opportunities for students under their tutelage and to assist them in securing employment in an occupation related to their vocational training.

About one-third of the 55 vocational centers employ placement coordinators whose responsibilities include assisting students in locating employment and keeping the vocational center on the minds of local business and industry as a labor force resource. This makes the placement coordinator an agent not only for the individual student looking for a job but for the school seeking to establish a reputation locally for providing skilled, responsible workers. In view of astronomical unemployment rates for youth, their inexperience in competing for jobs, and the paucity of entry level, semi-skilled employment available particularly in rural areas, the placement coordinator has the potential to play a vital role in the economic and social stability of the community.

The tracking of vocational students after they leave the system to determine how many have secured and retained employment in and out of their vocational field is a difficult, but important task. Area vocational center staff are expected to keep records on the number of students they have placed in employment. In addition, the South Carolina State Department of Education conducts follow-up surveys of selected vocational and comprehensive high school students who have completed their vocational training or who were enrolled in a vocational program but did not complete their vocational studies before leaving the public school system. A stratified sample of students from vocational

centers and comprehensive high schools in South Carolina was included in a 1979-80 (school year) student placement follow-up survey conducted and published by the South Carolina State Department of Education in April, 1981. About one-third of all students contacted responded to the survey and so were counted in follow-up results.

Knowing which vocational programs lend themselves to student employment on a regular basis would be one way of measuring the quality and effectiveness of those programs. Survey results obtained from the S. C. State Department of Education for use in this report were grouped by vocational school but not by occupational program area.

From the aforementioned survey, we know that Aynor-Conway Career Center (Horry County) achieved the highest placement statistics (19%) of all the schools in the survey. Fifty-one percent of the students who took vocational courses at Aynor-Conway prior to 1979 responded. Nineteen percent of those students were employed in a field related to their vocational studies.[47] While one could not determine from these survey results which of the vocational programs produced the highest placement, this information is presumably available to local administrators and advisory council members for their use in assessing the quality and relevance of their vocational center curriculum.

Communication between Vocational Education System and Local Business/Industry

One of the most direct links between the vocational center and local employers is the school and/or craft advisory council and program advisory committees. These committees have been in existence since the openir, of the first vocational centers in 1966. There are individual committees for each of

the occupational program areas which are usually composed of representatives from local business and industry. Program committee responsibilities include advising Center administrators and faculty on a variety of important issues such as quality of training provided by the center, new and emerging processes or equipment in the field, job openings, etc.

The Vocational Education Amendments of 1976 mandate that school districts which receive federal financial support must set up an advisory council. Composition of this council must include representation of both sexes and of the racial and ethnic minorities found in the program areas, schools, community or region which the council serves. The law states that the local advisory council shall advise the school district on current job needs and the relevance of programs (courses) being offered to meet those needs. Further, it stipulates that the local advisory council shall consult with the school/district in developing the annual application to the State Board of Education.[48]

Some vocational administrators feel that establishing and maintaining a school vocational advisory council is time consuming, duplicative, and non-productive. Administrators claim to find it difficult, if not impossible, to identify citizens who are willing to participate on school councils. If and when they do seat a council, administrators often fail to set forth tasks which are sufficiently meaningful, challenging and provocative to keep council members interested and active. Because the councils are only advisory in nature, school officials seem uninterested in setting substantive agendas and council members are disinclined to attend or be attentive to what appears to be an unimportant activity. In an investigation of the impact of advisory committees, the South Carolina State Department of Education found that (1) a majority of the reported advisory groups were not functioning; (2) seventy-seven percent of advisory

committee and 47% of advisory council members felt their group was not having an impact on the programs they served; and (3) a substantial proportion of area vocational center directors appeared not to be providing the leadership, encouragement, and support necessary for enthusiastic operation of the advisory groups serving these centers.[49]

Needless to say, there are vocational centers and schools which have active and productive advisory councils. These councils work on a regular basis to keep pace with the times and to continue to improve the quality of instruction and administration in their schools. Councils such as these can and should be of assistance to vocational administrators who are having difficulty seating a council that works smoothly and to the ultimate advantage of the student, the school, and the community.

Conclusion

Generally speaking, the South Carolina Vocational Education system's stated purpose is consistent with the goals and objectives of at least two other state offices and agencies. For example, in his letter to employers across the state, Governor Richard Riley requested their assistance in planning the direction of vocational and technical education so that state resources for the system's training programs are used wisely and meet the needs of business and industry.[50] Likewise, the South Carolina State Development Board in its 1980-81 annual report indicated that "throughout the coming year, the goals of the State Development Board will be to: encourage the establishment of more highly skilled and better paying jobs, to encourage development in rural areas of the state, and to help raise the income levels of South Carolina's workers."[51]

In support of vocational education's role in the state's economic development, Dr. Charlie Williams, State Superintendent of Education, declares that "it would be more than wasteful to spend time and money training students who learn a skill they can't use." He goes on to say that "we owe it to our young students and to our state to continue our efforts to maintain quality in our vocational education system."[52] But even more promising and timely is Dr. Williams' plan for "The Move to Quality, 1983-1987." In this plan Dr. Williams points out that "As South Carolina moves into the era of high technology and telecommunications, even greater demands will be placed on the state's educational system. The time is appropriate for this state to make a concentrated effort to develop the educational programs required for today's world. To meet the expectations of the expanded student groups served by the public schools (handicapped, early childhood, gifted/talented, remedial/compensatory, vocational, and college bound), as well as increased public expectations, bold new programs and actions will be required."[53] Actions proposed by Dr. Williams in "The Move to Quality, 1983-1987," include the following:

> "Improved Academic and Vocational Achievement
> The professional and board leadership of public education must ensure quality in existing programs and must plan and implement new quality programs to meet the needs of the students and the demands of the public it serves. Adjustments in or the elimination of ineffective programs must be a top priority." [54]

and

> "The placement of graduates of occupational training programs in appropriate jobs is a method of ensuring program effectiveness. Thus, to assure that occupational training programs being offered are appropriate to student, local community, and state needs, and to provide benchmarks for decision-making regarding programs, the State Board of Education should set annual and five-year state placement goals, and local school district officials should set annual and five-year district placement goals for all occupational training programs in vocational education." [55]

The objectives of "The Move to Quality" initiative are positive and useful. They can also be interpreted as an acknowledgement by the State Department of Education that change is needed in South Carolina's vocational education system. This is a necessary first step if the system is to work better for students and for South Carolina.

Sixteen years after the doors opened to the first vocational centers in South Carolina, the purpose of vocational education needs to be re-examined. This paper suggests that the operational realities and outcomes of vocational education are not consistent with the purposes of the system as set forth by state leaders. In fact, very few people in South Carolina other than vocational educators understand how the system works or the degree to which it serves students and the economic development interests of the state. As a result the vocational education curriculum remains substantially unchanged, students continue to enroll in programs that may have little to do with preparing them for employment, and the advisory council mechanism for school-industry-business communication and cooperation is ineffective. These and other issues need to be discussed and addressed by representatives of the public and private sectors if our vocational education system is to produce a labor force ready and able to meet the employment challenges of tomorrow.

Questions for Discussion

1. What should be the purpose of South Carolina's vocational education system for secondary school students?

   - To provide marketable skills for which there will be a demand in entry-level positions open to high school graduates?

   - To provide a general exposure to broad work related experience (expectations, skills, task assignment and completion, etc.)?

   - To provide an orientation to the world of work, and to specific occupational areas, with an expectation that students should seek more intensive training in the state's technical education system?

   - To provide enrichment opportunities (personal typing, home economics, auto mechanics, etc.) which are satisfied by students taking one one or two courses?

2. What types of students should the vocational education system be designed to attract and serve?

   - All students?

   - Students who want to begin careers immediately after high school?

   - Low-achievers who cannot succeed in the regular academic curriculum?

   - Students who have met or exceeded South Carolina's minimum basic skills requirements in reading, mathematics, and writing as tested by the eighth grade Basic Skills Assessment Program?

3. How can students receive more practical, substantive, and current information about the relationship between skills taught in specific vocational education courses and entry level positions in specific occupations?

4. What is the practical utility of secondary school vocational education to students who have been enrolled in voc-ed courses and who seek employment immediately after high school?

5. What additional data, research, and analysis is needed to determine the utility of secondary school vocational education to students who seek employment immediately after high school?

Questions for Discussion (continued)

6. What is the relationship between South Carolina's projected employment needs during the next ten years, and the curriculum of the secondary school vocational education system?

7. What new and emerging technological skills can be appropriately taught in the secondary vocational education system?

8. What should be the process by which courses are developed and selected to be offered as a part of the vocational education curriculum?

9. How can an on-going communications system be developed between vocational educators and business/industry to assure that skills taught better meet the changing needs of business/industry?

10. What is the relationships between South Carolina's economic development policy, and the purpose and course offerings of the secondary school vocational education system?

11. How can more business/industry leaders be involved in shaping public policy initiatives which will enable the vocational education system to become an asset in the state's industrial development?

12. What steps are necessary to encourage more interagency cooperation so the state's secondary school vocational education system is ar integral part of economic and industrial development initiatives in local communities?

Footnotes

(1) Comments by Dr. Moody Oswald in a press release from South Carolina State Department of Education, Public Information Office, July 28, 1980.

(2) "Vocational Education: Building for Economic Growth in South Carolina" by Dr. Charlie G. Williams, in South Carolina Vocational Education Journal, April, 1982.

(3) South Carolina Vocational Centers. . .The Success Network, L. L. Lewis, State Director of Vocational Education, Foreword (No Date)

(4) The Defined Minimum Program for South Carolina School Districts, 1977 p. 54, South Carolina State Department of Education

(5) A Presentation for the South Carolina Administrator's Summer Conference, July 11-15, 1982, Dr. Moody Oswald, Director, Office of Vocational Education, South Carolina State Department of Education.

(6) Superintendent's Annual Report, 1980-81. State Department of Education, page 446.

(7) The Defined Minimum Program for South Carolina School Districts, 1977, page 56, The South Carolina State Department of Education.

(8) Ibid., page 58

(9) Vocational Education Enrollment Report, 1981-82, Secondary Enrollment, Summary page by school year/fiscal year and program area.

(10) South Carolina Vocational-Technical Education Mini-Plan, 1981-82: Developing South Carolina's Most Valuable Resource. .People, page 2.

(11) A Study of PreVocational Education in South Carolina, Research Coordinating Unit, Office of Vocational Education, S.C. State Department of Education, July, 1981, page 30.

(12) Vocational Education Enrollment Report, Fall, 1981, South Carolina State Department of Education, Office of Vocational Education.

(13) South Carolina, FY 1981, Accountability Report, Vocational-Technical Education, August, 1982, Table 10, page 33.

(14) Vocational Education Enrollment Report, Fall, 1980, South Carolina State Department of Education, Office of Vocational Education.

(15) Ibid.

(16) Vocational Education Enrollment Report, 1981-82, Summary Page by school year/fiscal year and program area.

(17) South Carolina, FY 1981, Accountability Report, Vocational-Technical Education, August 1982, Table 10, page 33.

(18) Ibid.

(19) Vocational Education Enrollment Report, Fall, 1980, South Carolina State Department of Education, Office of Vocational Education.

(20) Ibid.

(21) Industry Wage & Practices Survey, South Carolina, State and Area Averages, January, 1982. State Board for Technical and Comprehensive Education. Statewide Averages of hourly wages paid experienced workers, p. SA-6.

(22) South Carolina, FY 1981, Accountability Report, Vocational-Technical Education, August, 1982, Table 10, page 33.

(23) Vocational Education Enrollment Report, Fall, 1980, South Carolina State Department of Education, Office of Vocational Education.

(24) South Carolina, FY 1981, Accountability Report, Vocational-Technical Education, August, 1982, Table 10, page 33.

(25) Vocational Education Enrollment Report, 1981-82, Summary page by school year/fiscal year. South Carolina State Department of Education.

(26) South Carolina, FY 1981, Accountability Report, Vocational-Technical Education, August 1982, Table 10, page 33.

(27) South Carolina Occupational Projections, 1978-1985, July, 1982, South Carolina Employment Security Commission.

(28) Ibid., page 1

(29) Bienstock, Dr. Herbert, "New and Emerging Occupations: Fact or Fancy," Occasional Paper No. 77. The National Center for Research in Vocational Education, Columbus, Ohio. August, 1981.

(30) South Carolina Occupational Projections, 1978-1985, July, 1982, South Carolina Employment Security Commission. Page 7.

(31) Ibid., page 22

(32) Ibid., page 22

(33) Labor Demand and Supply -- South Carolina -- FY 1983, South Carolina Employment Security Commission, page 31.

(34) Ibid.

(35) Ibid.

(36) Vocational Education Enrollment Report, Fall, 1981, South Carolina State Department of Education, Office of Vocational Education.

(37) Labor Demand and Supply -- South Carolina -- FY 1983, South Carolina Employment Security Commission, page 31.

(38) Ibid.

(39) Ibid., page 33.

(40) South Carolina Occupational Projections, 1978-1985, July, 1982, South Carolina Employment Security Commission, page 54.

(41) Labor Demand and Supply -- South Carolina -- FY 1983, South Carolina Employment Security Commission, page 30.

(42) Ibid.

(43) South Carolina Occupational Projections, 1978-1985, July, 1982, South Carolina Employment Security Commission, page 110.

(44) A Study of Prevocational Education in South Carolina, Research Coordinating Unit, Office of Vocational Education, South Carolina State Department of Education, July, 1982, page 30.

(45) Ibid., page 31.

(46) 1980-81 Evaluation Report, South Carolina Advisory Council on Vocational and Technical Education, January, 1982, page 46.

(47) Student Placement Follow-Up Results, Group B (April, 1980). South Carolina State Department of Education, Office of Vocational Education.

(48) State Vocational Education Programs, Subpart 1 - State Administration, 104.91, State Advisory Council. Federal Register, Vol. 42, No. 191, Monday, October 3, 1977.

(49) A Summary of An Investigation of the Impact of Advisory Committees, Office of Vocational Education, South Carolina State Department of Education, June, 1981, pp. 13-15.

(50) Letter from Governor Richard W. Riley, to State Employers, May 27, 1981.

(51) 1980-81 Annual Report, South Carolina State Development Board.

(52) Williams, Charlie G., "Vocational Education: Building for Economic Growth in South Carolina," in South Carolina Vocational Education Journal, April, 1982.

(53) Williams, Charlie G., "Public Education in South Carolina: The Move to Quality, 1983-1987," page 1.

(54) Ibid.

(55) Ibid., page 2.

VOCATIONAL EDUCATION INSTRUCTIONAL PROGRAM OFFERINGS...

AGRICULTURE
Agricultural Chemicals I, II
Agricultural Mechanics I, II
Agricultural Production
Agricultural Production, Business Mgt. I, II
Agricultural Products I, II
Agricultural Sales & Services I, II
Agricultural Science
Environmental & Natural Resources I, II
Floriculture I, II
Forestry I, II
Livestock Management I, II
Ornamental Horticulture I, II
Pulpwood Harvesting I, II
Turf & Lawn Management I, II

BUSINESS & OFFICE EDUCATION
Accounting I, II
Business Communications
Business English
Business Law
Business Mathematics
Data Processing I, II
Introduction to Business
Keypunch
Office Machines
Office Occupations (Cooperative) I, II
Office Occupations Production Lab
Office Procedures
Record Keeping I, II
Senior Intensified Office Occupations Studies
Shorthand I, II
Typing I, II
Typing II - Shorthand II
Typing II - Office Procedures
Word Processing
Business Principles and Management
Accounting Major
Data Processing Major
General Clerical Major
Stenographic Major
Senior Intensified Program Major

CONSUMER & HOMEMAKING
Basic Consumer & Homemaking
Advanced Consumer & Homemaking
Child Development I, II
Clothing & Texitles I, II
Consumer Education I, II
Family Life Education I, II
Foods & Nutrition I, II
Housing & Home Furnishings I, II
Human Sexuality I, II
Parenthood Education

ADULT HEALTH OCCUPATIONS
Dental Assisting
Practical Nursing (12 Month)
Practical Nursing (Phase II)
Surgical Technician

SECONDARY HEALTH OCCUPATIONS
Health Occupations I, II
Practical Nursing (Phase I)

MARKETING & DISTRIBUTIVE EDUCATION
Fashion Merchandising
Distributive Education I
Distributive Education II

OCCUPATIONAL HOME ECONOMICS
Child Care Services I, II
Clothing Services I, II
Food Services I, II
Housing & Home Furnishings Service I, II
Institutional & Home Management Services I, II

TRADES & INDUSTRY
Air Conditioning, Refrig. & Heating I, II, III
Appliance Repair I, II, III
Automotive Body Repair I, II, III
Automotive Mechanics I, II, III
Automotive Services
Barbering I, II, III
Building Construction I, II, III
Business Machine Maintenance I, II, III
Cabinetmaking I, II, III
Commercial Art I, II, III
Commercial Photography I, II, III
Cosmetology I, II, III
Drafting I, II, III
Electricity I, II, III
Electronics I, II, III
Graphics Communications I, II, III
Industrial Sewing I, II
Machine Shop I, II, III
Masonry I, II, III
Metalworking & Fabrication I, II
Painting & Decorating I, II, III
Plumbing & Pipefitting I, II, III
Radio & Television Repair I, II, III
Sheet Metal I, II, III
Small Engine Repair I, II, III
Tailoring I, II, III
Textiles I, II, III
Tilesetting I, II
Welding I, II, III

INDUSTRIAL ARTS
Industrial Arts Lab. I, II
Mechanical Drawing I, II

PREVOCATIONAL
Prevocational

SPECIAL PROGRAMS
Disadvantaged
Handicapped
Special Adult

Experimental

JOB PLACEMENT OF SECONDARY VOCATIONAL STUDENTS WHO COMPLETED OCCUPATIONAL PROGRAMS IN SCHOOL YEAR 1979-80

Occupational Program Area	FY 1980 Actual Enrollment[1]	Program Completions		Available for Placement			Placed in Field		
		#	% of '80 Enr.	#	% of '80 Compl.	% of Total '80 Enr.	#	% of Available	% of Completers
BUSINESS AND OFFICE OCCUPATIONS	33,753	4,720	13.9	2,203	46.7	6.7	845	38.3	17.9
TRADES AND INDUSTRIAL EDUCATION	25,112	7,853	31.2	4,623	58.8	18.4	1,243	26.8	15.8
AGRICULTURE	11,088	1,715	15.4	930	54.2	8.3	145	15.6	8.4
MARKETING AND DISTRIBUTIVE EDUCATION	5,108	2,289	44.8	1,184	51.7	23.1	544	45.9	23.7
OCCUPATIONAL HOME ECONOMICS	1,702	705	41.4	384	54.4	22.5	52	13.5	7.3
HEALTH OCCUPATIONS EDUCATION	1,427	678	47.5	396	58.4	27.7	311	78.5	45.8
TOTAL	78,190	17,960	22.9	9,720	54.1	12.4	3,140	32.3	17.4

1. 1980 Actual Enrollment taken from FY 1980 Accountability Report for Vocational-Technical Education, Table 9, page 32.

2. Completion and Placement data taken from FY 1981 Accountability Report for Vocational-Technical Education, Table 10, pg. 33.